

**CORRECTIVE ACTION PLAN
BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD
LAKESIDE, CALIFORNIA
DEH CASE NO. H20530-001**

PREPARED FOR:

Mrs. Margaret Bright
P.O. Box 1697
Lakeside, California 92040-1747

PREPARED BY:

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

April 19, 2006
Project No. 104270006

April 19, 2006
Project No. 104270006

Mrs. Margaret Bright
13329 Lakeshore Drive
Lakeside, California 92040-1747

Subject: Corrective Action Plan
Bright's 24-Hour Fuel Stop
12210 Industry Road
Lakeside, California
DEH Case No. H20530-001

Dear Mrs. Bright:

Ninyo & Moore is pleased to present this corrective action plan (CAP) for the above-referenced site. The CAP was prepared in general accordance with the County of San Diego Department of Environmental Health (DEH), Land and Water Quality Division written request dated November 8, 2004, and the Site Assessment and Mitigation Manual.

We appreciate the opportunity to be of continued service to you on this project. Should you have any questions regarding information as presented in this report, please contact the undersigned in our San Diego office at (858) 576-1000.

Respectfully submitted,
NINYO & MOORE



Sean O. McGoey, R.E.A.
Senior Project Environmental Geologist



W. Scott Snyder, P.G., H.G.
Senior Hydrogeologist

SOM/ELH/WSS/kes

Distribution: (2) Addressee
(1) Mr. Danny Martinez; County of San Diego Department of Environmental Health, P.O. Box 129261; San Diego, California 92112-9261

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November 8, 2004

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1. INTRODUCTION

Bright's 24-Hour Fuel Stop retained Ninyo & Moore to prepare a corrective action plan (CAP) for the property located at 12210 Industry Road, in Lakeside, California (Figure 1, site). The CAP was prepared in general accordance with the County of San Diego Department of Environmental Health, Land and Water Quality Division (DEH) written request dated November 8, 2004 (Appendix A), and the Site Assessment and Mitigation (SAM) Manual. Ninyo & Moore's scope of services included project management and coordination and preparation of this CAP which includes conclusions and recommendations regarding the remedial alternatives for closure of the site.

2. SITE IDENTIFICATION

The site is located at 12210 Industry Road, Lakeside, California, and encompasses approximately 0.8 acres of land. Further site information is given below.

Name of Business:	Bright's 24-Hour Fuel Stop
Site Address:	12210 Industry Road Lakeside, California 92040
DEH Case Number:	H20530-001
Assessor's Parcel Number:	394-011-33-00
Property Owner:	El Capitan Oil Company 11427 Woodside Avenue Santee, California 92040
Former Tank Owner and Operator:	Mrs. Margaret Bright 13329 Lakeshore Drive Lakeside, California 92040-1747
Contact Person:	Mrs. Margaret Bright 13329 Lakeshore Drive Lakeside, California 92040-1747 Phone No. (619) 443-1671
Current Tank Owner and Operator:	El Capitan Oil Company 11427 Woodside Avenue Santee, California 92040

Consultant:

Ninyo & Moore
5710 Ruffin Road
San Diego, California 92123
Phone No. (858) 576-1000

The site has been an active fueling station since 1986 and has four permitted underground storage tanks (USTs), which contain gasoline and diesel. The site also contains a small electrical/utility building, four fuel islands, 12 fuel dispensers, and associated landscaped areas. The remainder of the site is paved with concrete. The site is located in a mixed commercial/industrial area and is bordered to the north by an undeveloped lot, to the east by Barnmaster, Inc., to the west by Pacific Freightliner Trucks, and to the south by Industry Road, beyond which is State Highway 67 (Figure 2).

3. SITE BACKGROUND

Prior to the late 1960s, the site was used for agricultural purposes; for the next 20 to 25 years, it was used for gravel mining operations. In 1986, the site was developed as a gasoline and diesel fueling station. From 1986 to the present, the site has remained the same, with a property transfer to El Capitan Oil Company in 1998.

4. PREVIOUS SITE ASSESSMENT SUMMARY

The following information summarizes the previous assessment work performed at the site and adjacent properties by Ninyo & Moore and other consultants.

- In February 2000, Ninyo & Moore drilled and sampled five locations (NMB1 through NMB5) at the undeveloped property adjacent to the north of the site to assess the groundwater conditions. Soil samples were not collected. Groundwater was encountered at depths ranging from 30 to 32 feet below ground surface (bgs). Three of the five groundwater samples contained concentrations of methyl tertiary butyl ether (MTBE) at concentrations of 1.5, 3.2, and 4.7 micrograms per liter ($\mu\text{g}/\ell$). Concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPH-G), TPH as diesel (TPH-D), and benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in groundwater samples.
- In February 2000, Ninyo & Moore also performed a soil gas survey of the undeveloped property adjacent to the north of the site. Twelve locations were sampled (NMSV1 through

NMSV12). Concentrations of TPH-G were detected in three samples at a maximum concentration of 4 parts per million vapor (ppmv). None of the soil gas sample locations adjacent to the site contained detectable concentrations of TPH-G. Concentrations of benzene were detected in four samples at a maximum concentration of 0.3 ppmv. MTBE was not detected in the soil gas samples.

- In June 2002, Kahl Environmental Services (Kahl) drilled and sampled two borings (Kahl-A and Kahl-B) at the site. Soil samples were collected near the soil/groundwater interface, and groundwater samples were collected from each boring and analyzed. The soil and groundwater samples did not contain detectable concentrations of TPH-G, TPH-D, or BTEX. The groundwater samples contained MTBE at concentrations of 48 and 5 $\mu\text{g}/\ell$ from borings Kahl-A and Kahl-B, respectively (Figure 3).
- In December 2002, Ninyo & Moore drilled and installed five groundwater monitoring wells (NM-MW1 through NM-MW5) at the site. Boring logs and well construction schematics are included in Appendix B. Select soil samples were analyzed for TPH-G, TPH-D, BTEX, ether oxygenates (EOs), and organic lead. See Table 1 and Figures 4 and 5 for soil analytical results and cross sections. Concentrations of TPH-G, BTEX and organic lead were not detected. Concentrations of TPH-D were detected at a maximum of 860 milligrams per kilogram (mg/kg) in boring NM-MW4 at a depth of 1-foot bgs. MTBE was detected in two soil samples collected from boring NM-MW4 at concentrations of 5 and 15 micrograms per kilogram ($\mu\text{g}/\text{kg}$) at depths of 5 and 10 feet bgs, respectively. The wells were developed, surveyed, gauged, purged, and sampled according to the current SAM Manual guidelines. The samples were analyzed for TPH-G, TPH-D, BTEX, EOs, and organic lead. MTBE was detected in two wells, NM-MW3 and NM-MW4 at concentrations of 16 and 52 $\mu\text{g}/\ell$, respectively. Tert-butyl alcohol was also detected in well NM-MW3 at a concentration of 6.5 $\mu\text{g}/\ell$. Concentrations of TPH-G, TPH-D, BTEX, and other EOs were not detected.
- Since December 2002, the five on-site groundwater monitoring wells have been gauged, purged, and sampled for six groundwater monitoring events, with the last sampling event occurring in April 2005. Analytical results from the previous groundwater monitoring sampling events are summarized in Table 2 and Figure 6.

5. TOPOGRAPHY

Based on review of the United States Geological Survey, El Cajon, California, 7.5-minute quadrangle map (1967, Photorevised 1975), the site is situated at an elevation of approximately 390 feet above mean sea level (Figure 7). A sand pit and disturbed surface areas are present in the vicinity of the site. Surface drainage in the general vicinity of the site is to the northwest, toward the San Diego River, located approximately 1,000 feet north of the site.

6. GEOLOGY

This section summarizes the regional geologic setting and site geologic conditions. The information is based on our review of the referenced, published, and unpublished reports, and observations made by Ninyo & Moore at the site.

6.1. Regional Geologic Setting

The project area is situated in the western portion of the Peninsular Ranges geomorphic province of Southern California. The province encompasses an area that extends 125 miles from the Transverse Ranges and the Los Angeles Basin, south to the Mexican border, and continues another 775 miles to the tip of Baja, California. The province varies in width from 30 to 100 miles, most of which is characterized by northwest-trending mountain ranges separated by subparallel fault zones. In general, the mountain ranges are underlain by Jurassic-age metavolcanic and metasedimentary rocks and Cretaceous-age igneous rocks, which are known as the Southern California batholith. The western portion of the province, in which the site is located, generally consists of Upper Cretaceous-, Tertiary-, and Quaternary-age sedimentary rocks (Kennedy and Peterson, 1975).

6.2. Site Geologic Conditions

The site is underlain by fill, which consists of a medium to dark brown, medium dense to very dense, silty, fine to medium sand, with gravels, cobbles, and boulders, and medium brown, medium dense to dense, clayey, fine to medium sand, with gravels, cobbles, and boulders. Small amounts of construction debris were observed in the fill soil cuttings including steel cables, wood, and metal. The fill ranged from 9 to 22.5 feet in thickness. The fill is underlain by alluvial deposits, which consist of dark brown, loose to medium dense, clayey silt, and medium to dark brown, loose to dense, silty, fine to medium sand, and medium brown, medium dense, clayey, fine to medium sand. The alluvial deposits were encountered in all five borings.

7. HYDROGEOLOGY

This section summarizes the regional hydrogeologic setting and site hydrogeologic conditions. The information is based on our review of the referenced published and unpublished reports and observations made by Ninyo & Moore at the site.

7.1. Regional Hydrogeologic Setting

Based on the review of available hydrogeologic data from the Regional Water Quality Control Board (RWQCB) and the California Department of Water Resources (DWR), the site is located in the Santee Hydrologic Subarea of the Lower San Diego Hydrologic Area, within the San Diego Hydrologic Unit. The nearest surface water drainages are the San Diego River (drains to the west), located approximately 1,000 feet north of the site, and Los Coches Creek (drains to the north into the San Diego river), located approximately 1,000 feet south of the site. The RWQCB has assigned the surface waters in the San Diego River watershed the following existing beneficial uses: industrial service supply, contact and non-contact water recreation, warm and cold freshwater habitat, and wildlife habitat. The potential beneficial uses of surface waters in this area are municipal and domestic supply. The RWQCB has assigned the following existing beneficial uses for groundwater in the area: municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

The known groundwater production wells closest to the site include the Riverview Water District well field, located approximately 3,800 feet west of the site, and a Lakeside Water District well, located approximately 3,000 feet northeast of the site (Figure 7). Both are active groundwater production well facilities. Based on the topography of the area, our understanding of site groundwater gradient, and the general flow direction of the San Diego River, the Riverview Water District well field is crossgradient to downgradient of the site, and the Lakeside Water District well is upgradient of the site.

The depth to groundwater in the vicinity of the site has followed climatic cycles for the years gauged. The lowest groundwater elevations were measured in July 2004, where 3.63-

inches of precipitation had fallen in the previous 6 months, compared to the highest groundwater elevations in April 2005, where 21.76-inches of precipitation had fallen in the previous 6 months. The average difference in measured groundwater elevations at the site from 2004 (average groundwater elevation 365.33-feet) to 2005 (average groundwater elevation 370.23) was 4.9-feet.

7.2. Site Hydrogeologic Conditions

Groundwater was measured at 369.73 to 371.02 feet above mean sea level (MSL) during the most recent field activities in April 2005. The groundwater survey data is presented on Table 3. Based on the topography of the site vicinity and surveyed groundwater elevations, the site groundwater flow direction is northwest, toward the San Diego River (Figure 8). However, groundwater depths, flow direction, and gradient may be influenced by seasonal fluctuations, groundwater withdrawal or injection, and other factors.

8. CONTAMINANT CHARACTERIZATION

The majority of the human health-related research conducted to date on MTBE has focused on effects associated with the inhalation of the chemical. When research animals inhaled high concentrations of MTBE, some developed cancers or experienced other non-cancerous health effects. To date, independent expert review groups who have assessed MTBE inhalation health risks have not concluded that the use of MTBE-oxygenated gasoline poses an imminent threat to public health. However, researchers have limited data about what the health effects may be if a person swallows (ingests) MTBE. The Environmental Protection Agency's (EPA's) Office of Water has concluded that available data are not adequate to estimate potential health risks of MTBE at low exposure levels in drinking water but that the data support the conclusion that MTBE is a potential human carcinogen at high doses.

Scientists know that MTBE behaves differently in groundwater from other petroleum products such as benzene. Unlike petroleum hydrocarbons, it is highly water soluble, not easily adsorbed to soil, and resists biodegradation. Thus, with widespread use, MTBE has the potential to occur

in high concentrations in groundwater, travel far from leak sources, and accumulate to become a hazard on a regional scale.

The contaminants remaining on site include MTBE in groundwater with concentrations below the current California Department of Health Services primary maximum contaminant level (MCL) of 13 $\mu\text{g}/\ell$.

Concentrations of TPH-D are present in the subsurface soil at the site. The highest TPH-D concentration detected was 860 mg/kg in boring NM-MW4 at a depth of 1 foot bgs. It is estimated that the volume of soil at the site containing TPH-D with concentrations less than 100 mg/kg is approximately 650 cubic yards. Figures 3, 4, and 5 present the approximate location of soil impacted with TPH-D at the site.

9. FEASIBILITY STUDY

As listed in the SAM Manual Section 7, a feasibility study is a requirement for a CAP. However, based on a discussion with Mr. Danny Martinez of the DEH, a feasibility study will not be required for this project due to the fact that MTBE concentrations in groundwater are below MCLs, and remediation of the site will not be required.

10. REMEDIAL GOALS

The remedial goals for the site are:

- Document the concentration of site contaminants are below MCLs for a period of one year and that the groundwater contaminant plume is not increasing in size. Therefore, natural attenuation is the remedial alternative selected for the site.

11. CONCLUSIONS

Based upon the site assessment activities conducted and available environmental assessment data, the following conclusions are provided:

- The groundwater plume is stable or shrinking.

- Concentrations of MTBE in groundwater for the last groundwater sampling event conducted in April 2005 are below the California Department of Health Services primary MCLs of 13 $\mu\text{g}/\ell$.
- The concentrations of MTBE and TPH-D remaining at the site do not pose a significant threat to human health or the environment.
- The remedial goals for the site have been accomplished.

12. RECOMMENDATIONS

Based upon the above conclusions, the following recommendations are provided:

- Quarterly sampling for a period of one year.
- No further assessment or remediation is recommended at this time, because the remedial goals have been met.
- The remaining contaminants in soil and groundwater at the site should be left to naturally attenuate.
- The five on-site wells should be permitted and abandoned according to DEH specifications following sampling.
- A No-Further-Action letter should be issued by the DEH following the quarterly sampling.

13. LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further

assessment of potential adverse environmental impacts from past on-site use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

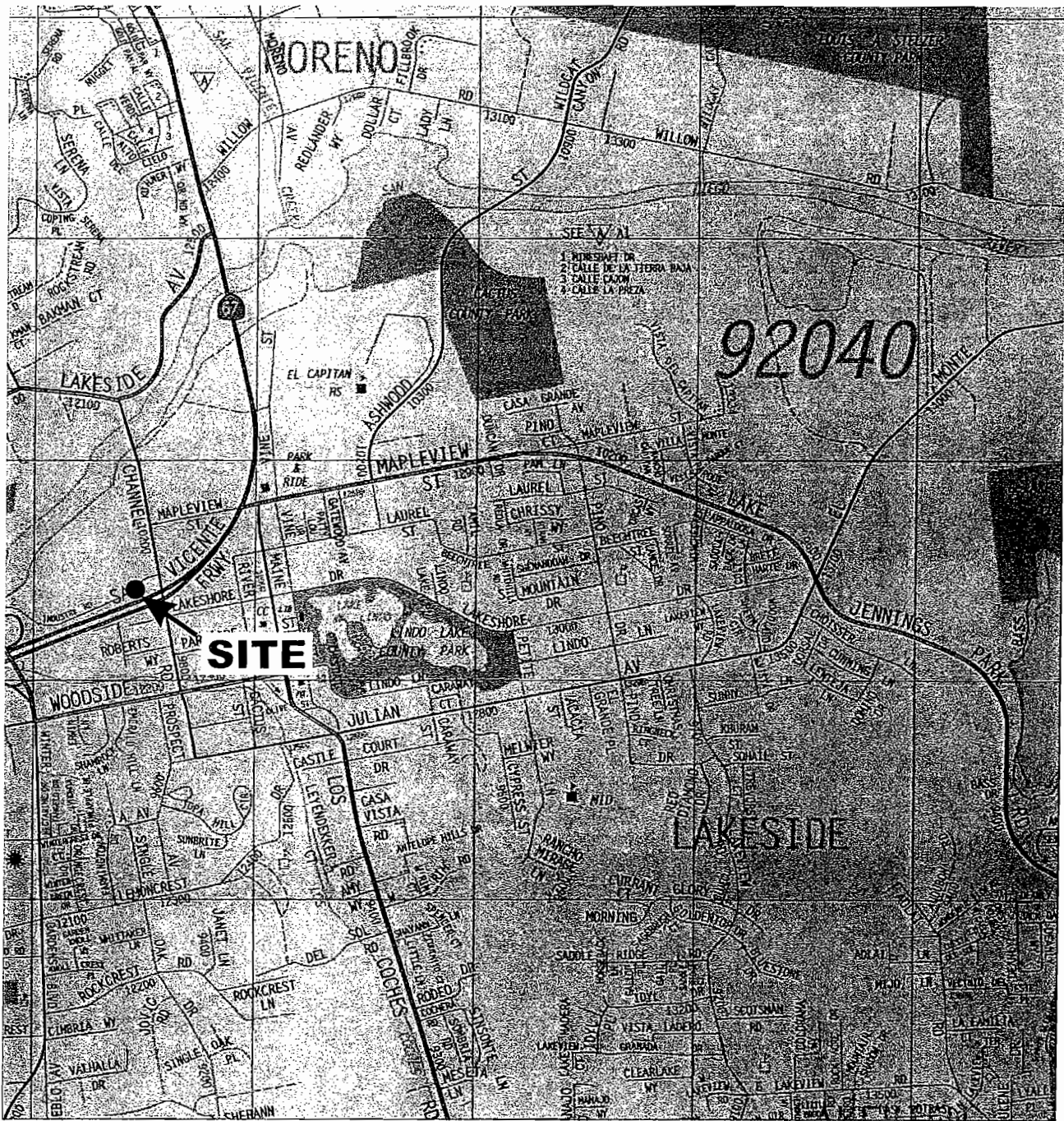
This report is intended exclusively for use by the client and designated representative. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

14. SELECTED REFERENCES

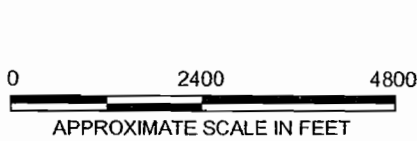
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- County of San Diego, Department of Environmental Health, 2003, Letter, Unauthorized Release Case # H20530-001, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California 92040-1747: dated June 26.
- County of San Diego, Department of Health Services, Site Assessment and Mitigation Division, 2003, Site Assessment & Mitigation (SAM) Manual.
- Kennedy, M.P. and Peterson, G.L., 1975, Geology of the San Diego Metropolitan Area, California: California Division of Mines and Geology, Bulletin 200.
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- Ninyo & Moore, 2002, Phase II Environmental Site Assessment Work Plan, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated July 17.
- Ninyo & Moore, 2003, Groundwater Sampling Event, July 2003, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California 92040: dated October 31.
- Ninyo & Moore, 2003, Groundwater Sampling Event, November 2003, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California 92040: dated December 31.
- Ninyo & Moore, 2003, Supplemental Phase II Environmental Site Assessment, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated May 20.
- Ninyo & Moore, 2004, Groundwater Sampling Event, First Quarter 2004, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated May 31.
- Ninyo & Moore, 2004, Groundwater Sampling Event, Fourth Quarter 2003, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated March 10.
- Ninyo & Moore, 2004, Groundwater Sampling Event, Second Quarter 2004, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated October 15.
- Ninyo & Moore, 2005, Groundwater Sampling Event, December 2004, Bright's 24-Hour Fuel Stop, 12210 Industry Road, Lakeside, California: dated April 1.
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Regional Water Quality Control Board (RWQCB), 1994, Comprehensive Water Quality Control Plan Report, San Diego Basin (9), prepared with the San Diego Regional Water Quality Control Board.

U.S. Geological Survey, 1968 (photorevised 1975), El Cajon Quadrangle – San Diego County, 7.5 minute series (topographic).



REFERENCE: 2005 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY.



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ningo & Moore

SITE LOCATION MAP

FIGURE

PROJECT NO.

DATE

BRIGHT'S 24-HOUR FUEL STOP

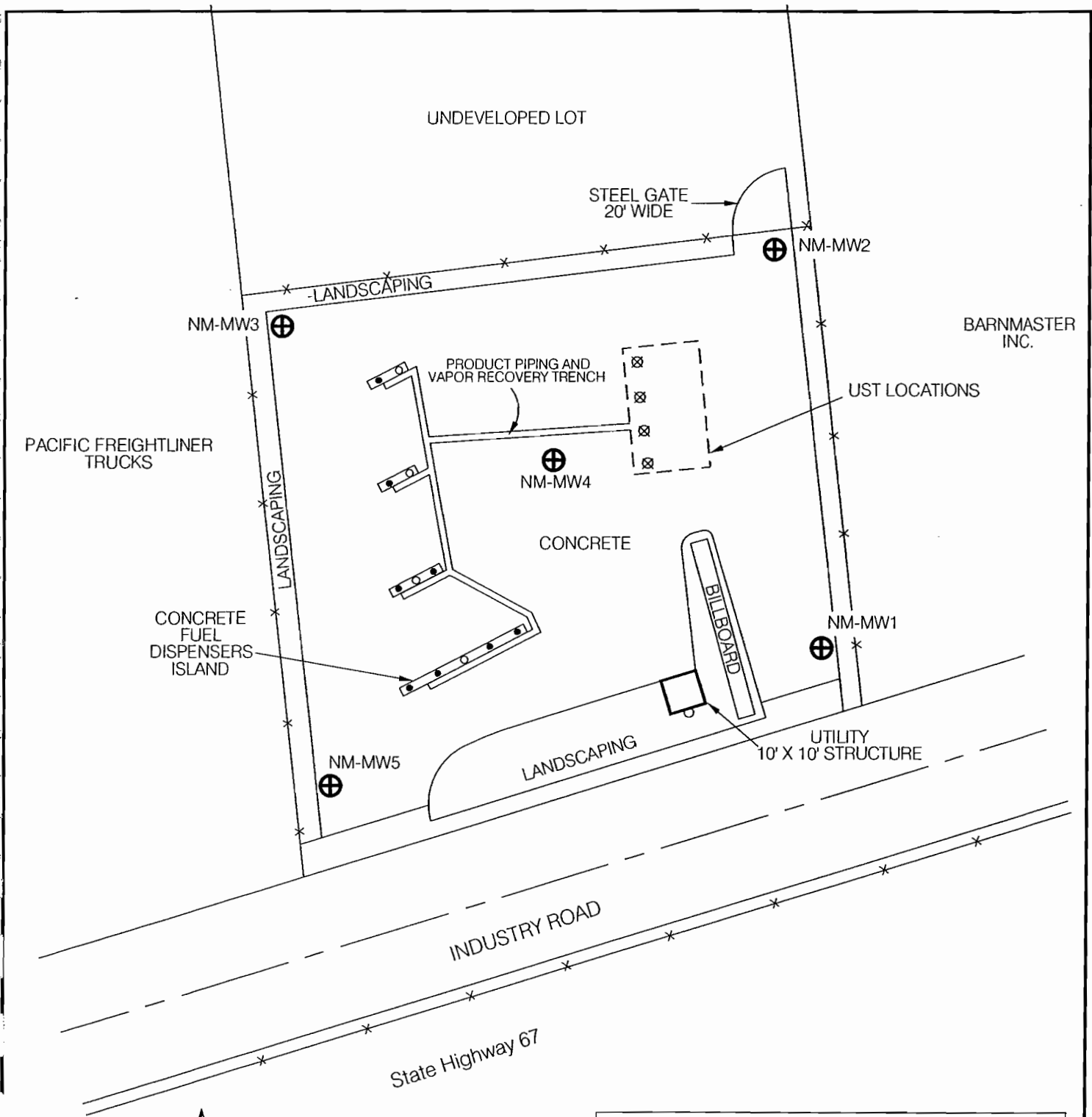
12210 INDUSTRY ROAD

LAKESIDE, CALIFORNIA

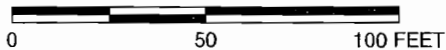
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4/06



APPROXIMATE SCALE



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

LEGEND

- ⊕ Monitoring well, Ninyo & Moore (December 2002)
- Dispenser - Gasoline
- Dispenser - Diesel
- x — Chain link fence
- ⊠ UST pump location

Ninyo & Moore

SITE VICINITY MAP

FIGURE

PROJECT NO.

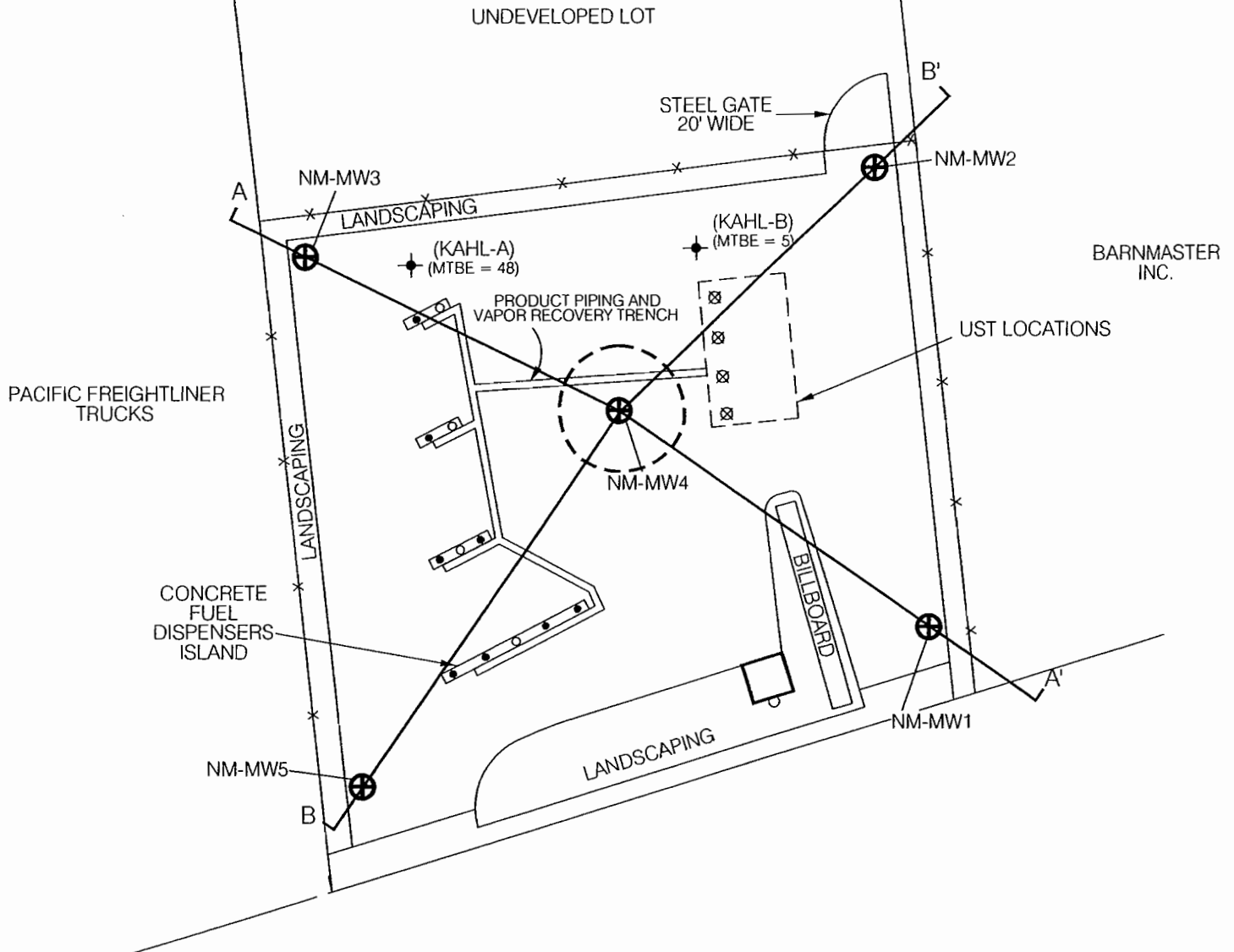
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12210 INDUSTRY ROAD
LAKESIDE, CALIFORNIA

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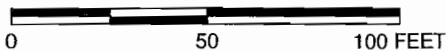
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LEGEND

- | | | | |
|--|--|------------|--|
| | Monitoring well, Ninyo & Moore (December 2002) | | Cross section |
| | Groundwater grab sample, Kahl (June 2002) | (MTBE = 5) | Analyte detected above method detection limit reported in micrograms per liter |
| | Dispenser - Gasoline | MTBE | Methyl Tert-Butyl Ether |
| | Dispenser - Diesel | | |
| | Fire hydrant | | |
| | Chain link fence with | | |
| | UST pump location | | Approximate extent of total petroleum hydrocarbons as diesel with concentrations greater than 100 mg/kg, inferred where dashed |

APPROXIMATE SCALE



Note: Other ether oxygenates not shown were not detected

Reference: Kahl report, 2002.

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KAHL ANALYTICAL RESULTS/ CROSS SECTION

FIGURE

PROJECT NO.

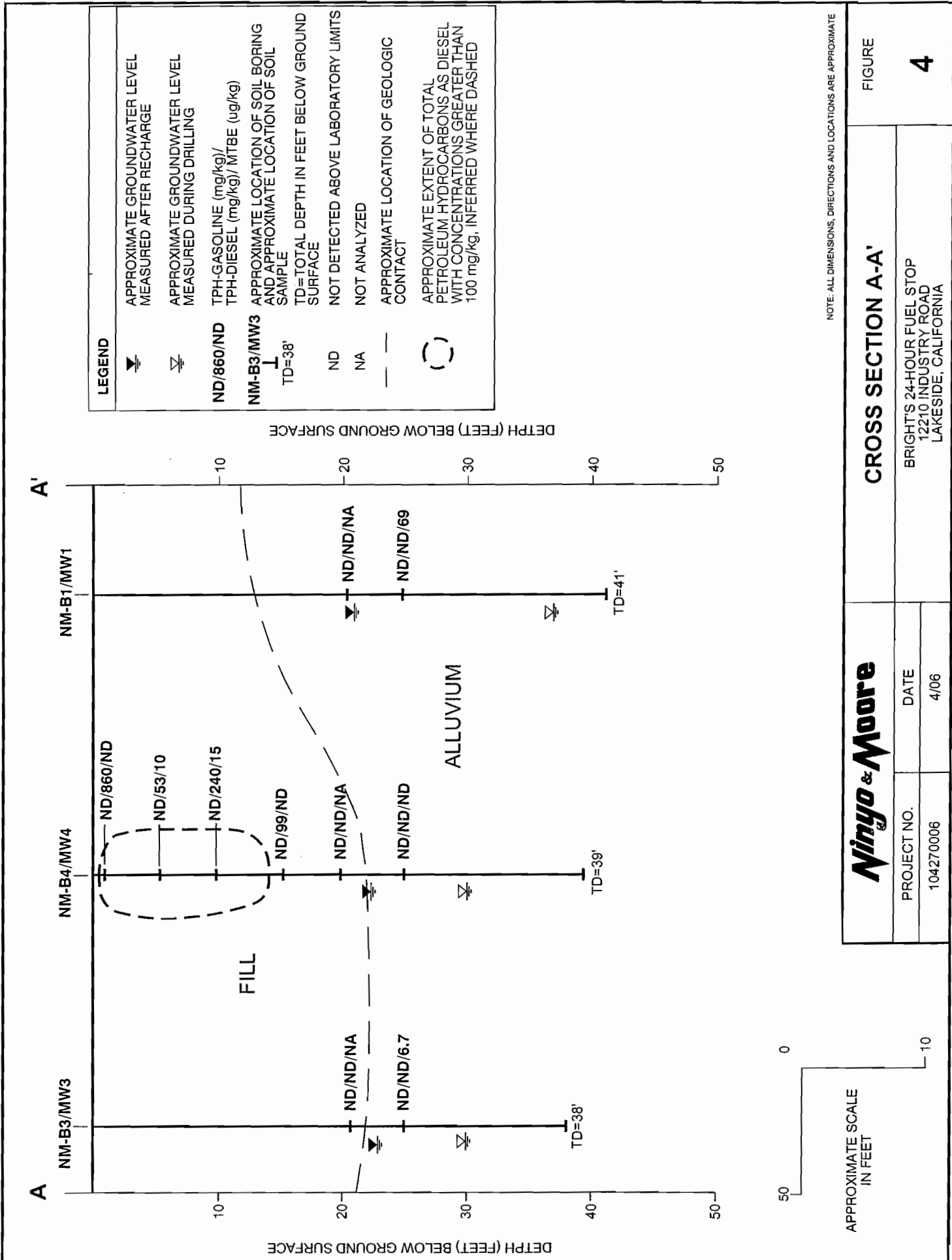
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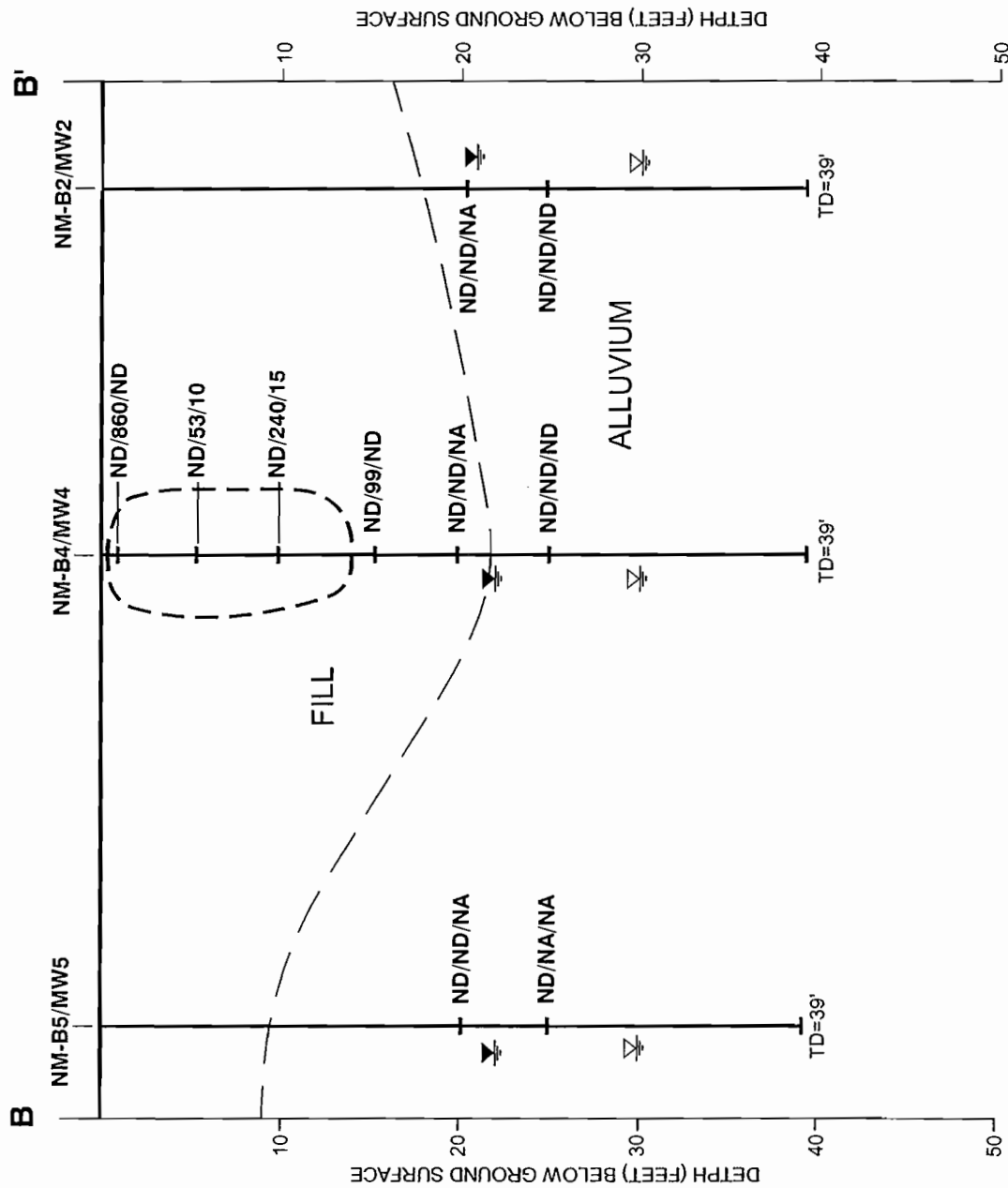
BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD
LAKESIDE, CALIFORNIA

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4-06





CROSS SECTION B-B'		FIGURE	
PROJECT NO.		BRIGHT'S 24-HOUR FUEL STOP	
104270006		12210 INDUSTRY ROAD	
		LAKESIDE, CALIFORNIA	
DATE		FIGURE	
4/06		5	



UNDEVELOPED LOT

NM-MW3

DATE	TPH-G	TPH-D	BTEX	MTBE	TBA	LEAD
12/02	ND	ND	ND	16	6.5	--
7/03	ND	ND	ND	49	ND	ND
11/03	ND	ND	ND	14	ND	ND
3/04	ND	ND	ND	31	ND	ND
7/04	ND	ND	ND	17	ND	ND
12/04	ND	ND	ND	3.9	ND	ND
4/05	ND	ND	ND	ND	ND	ND

NM-MW2

DATE	TPH-G	TPH-D	BTEX	MTBE	TBA	LEAD
12/02	ND	ND	ND	ND	ND	--
7/03	ND	ND	ND	ND	ND	--
11/03	ND	ND	ND	ND	ND	ND
3/04	ND	ND	ND	ND	ND	ND
7/04	ND	530	ND	ND	ND	ND
12/04	ND	ND	ND	ND	ND	ND
4/05	ND	ND	ND	ND	ND	ND

STEEL GATE
20' WIDE

LANDSCAPING

(KAHL-A)
(MTBE = 48)

(KAHL-B)
(MTBE = 5)

PRODUCT PIPING AND
VAPOR RECOVERY TRENCH

BARNMASTER
INC.

UST LOCATIONS

PACIFIC FREIGHTLINER
TRUCKS

LANDSCAPING

CONCRETE
FUEL
DISPENSERS
ISLAND

NM-MW4

DATE	TPH-G	TPH-D	BTEX	MTBE	TBA	LEAD
12/02	ND	ND	ND	52	ND	--
7/03	ND	ND	ND	7.9	ND	--
11/03	ND	ND	ND	25	ND	ND
3/04	ND	ND	ND	32	ND	ND
7/04	ND	ND	ND	11	ND	ND
12/04	ND	520	ND	51	ND	ND
4/05	ND	ND	ND	8.5	ND	ND

BILLBOARD

LANDSCAPING

NM-MW5

DATE	TPH-G	TPH-D	BTEX	MTBE	TBA	LEAD
12/02	ND	ND	ND	ND	ND	--
7/03	ND	ND	ND	ND	ND	--
11/03	ND	ND	ND	ND	ND	ND
3/04	ND	ND	ND	ND	ND	ND
7/04	ND	ND	ND	ND	ND	ND
12/04	ND	ND	ND	ND	ND	ND
4/05	ND	ND	ND	ND	ND	ND

NM-MW1

DATE	TPH-G	TPH-D	BTEX	MTBE	TBA	LEAD
12/02	ND	ND	ND	ND	ND	--
7/03	ND	ND	ND	ND	ND	--
11/03	ND	ND	ND	ND	ND	ND
3/04	ND	ND	ND	ND	ND	ND
7/04	ND	ND	ND	ND	ND	ND
12/04	ND	ND	ND	ND	ND	ND
4/05	ND	ND	ND	ND	ND	ND

LEGEND

	Monitoring well, Ninyo & Moore (December 2002)	(MTBE = 5)	Analyte detected above method detection limit reported in micrograms per liter
	Groundwater grab sample, Kahl (June 2002)	MTBE	Methyl Tert-Butyl Ether
	Dispenser - Gasoline	TBA	Tert-butyl Alcohol
	Dispenser - Diesel	ND	Not detected at or above detection limits
	Fire hydrant	TPH-G	Total Petroleum Hydrocarbons as Gasoline (ug/L)
	Chain link fence	TPH-D	Total Petroleum Hydrocarbons as Diesel (ug/L)
	UST pump location	BTEX	Benzene, Toluene, Ethylbenzene, and total Xylenes (ug/L)
		LEAD	Total Lead in milligrams per liter (mg/L)

APPROXIMATE SCALE

0 50 100 FEET

Note: Other ether oxygenates not shown were not detected

Ninyo & Moore

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

FIGURE

PROJECT NO.

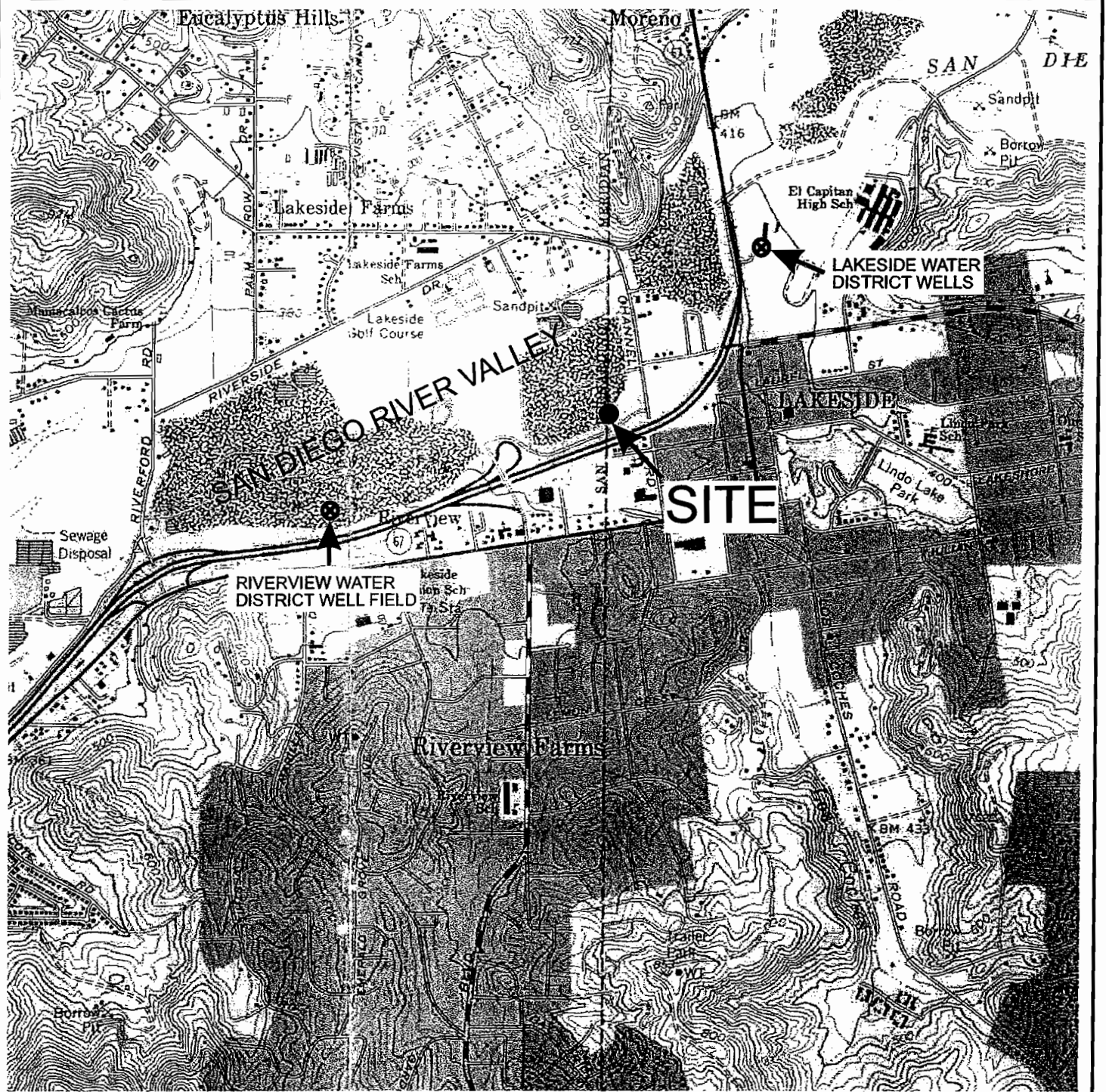
DATE

BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD
LAKESIDE, CALIFORNIA

104270006

4/06

6



REFERENCE: U.S.G.S., EL CAJON QUADRANGLE, 7.5 MINUTE SERIES (TOPOGRAPHIC), DATED 1967, PHOTOREVISED 1975.

0 2400 4800
APPROXIMATE SCALE IN FEET



LEGEND

⊙ Approximate location of groundwater production well

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

SITE PLAN

FIGURE

PROJECT NO.

DATE

BRIGHT'S 24-HOUR FUEL STOP

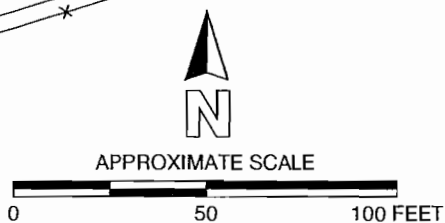
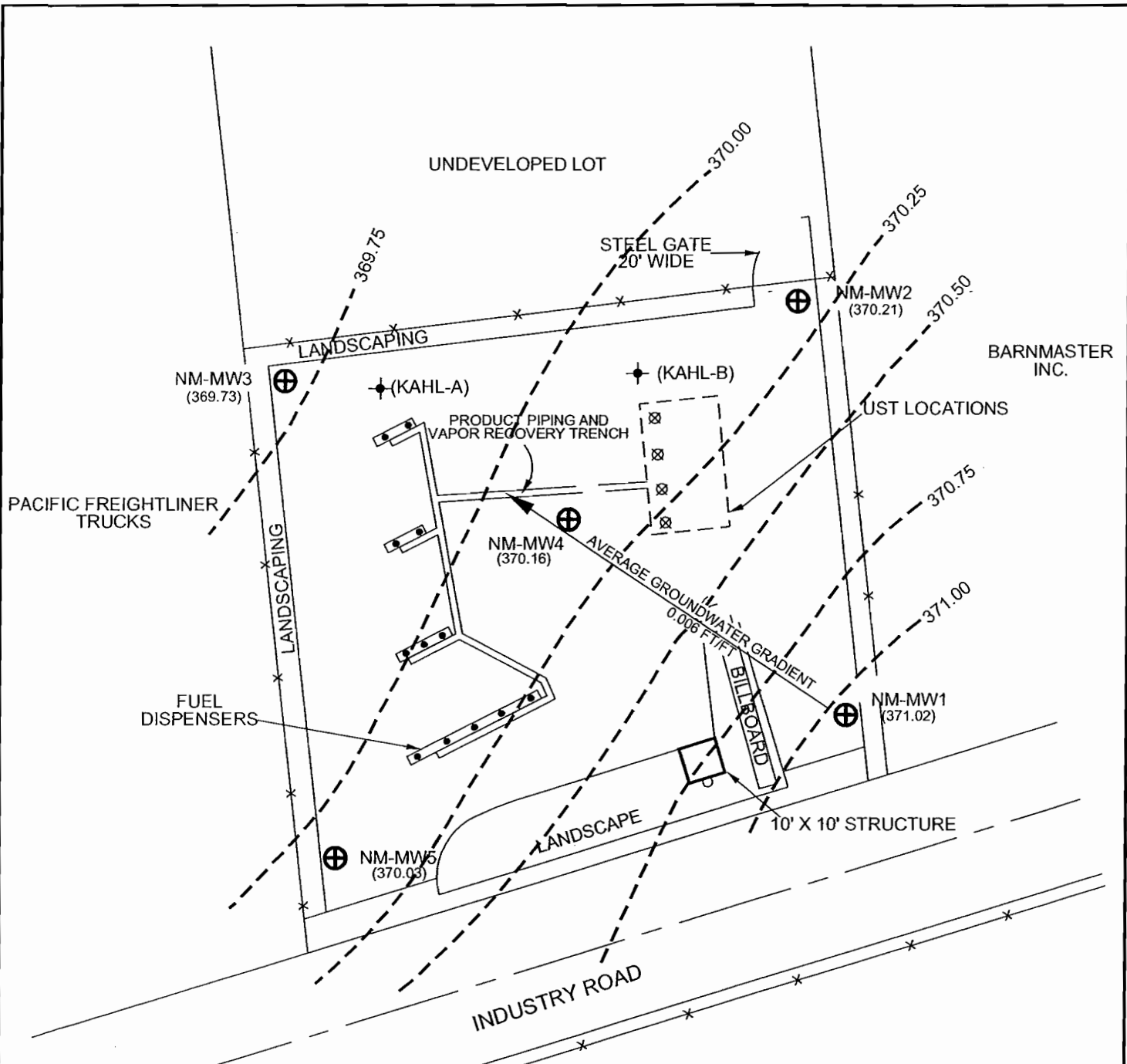
12210 INDUSTRY ROAD

LAKESIDE, CALIFORNIA

7

104270006

4/06



LEGEND	
	Estimated groundwater flow direction (April 2005)
	Monitoring well, Ninyo & Moore (December 2002)
(368.66)	Groundwater elevation, measured in feet above mean sea level on April 18, 2005
365.75 - - -	Groundwater elevation contour in feet
	Groundwater grab sample, Kahl (June 2002)
	Dispenser
	Chain link fence
	UST pump location

Ninyo & Moore

GROUNDWATER GRADIENT MAP

FIGURE

PROJECT NO.

DATE

BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD
LAKESIDE, CALIFORNIA

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104270006

4-06

Table 1 – Soil Analytical Results

Sample Identification	Date Sampled	TPH-G (mg/kg)	TPH-D (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)	EOs (µg/kg)	Organic Lead (mg/kg)
B1-27.5*	06/10/02	ND	ND	ND	ND	ND	ND	ND	--
B2-26*	06/10/02	ND	ND	ND	ND	ND	ND	ND	--
NM-B1-20	12/02/02	ND	ND	--	--	--	--	--	--
NM-B1-25	12/02/02	ND	ND	ND	ND	ND	ND	6.9-MTBE	--
NM-B2-20	12/02/02	ND	ND	--	--	--	--	--	--
NM-B2-25	12/02/02	ND	ND	ND	ND	ND	ND	ND	--
NM-B3-20	12/04/02	ND	ND	--	--	--	--	--	--
NM-B3-25	12/04/02	ND	ND	ND	ND	ND	ND	6.7-MTBE	--
NM-B4-1	12/03/02	ND	860	ND	ND	ND	8.4	ND	ND
NM-B4-5	12/03/02	ND	53	ND	7.1	ND	7	10-MTBE	--
NM-B4-10	12/03/02	ND	240	ND	8	ND	8.7	15-MTBE	--
NM-B4-15	12/03/02	ND	99	ND	ND	ND	ND	ND	--
NM-B4-20	12/03/02	ND	ND	--	--	--	--	--	--
NM-B4-25	12/03/02	ND	ND	ND	ND	ND	5.6	ND	--
NM-B5-20	12/03/02	ND	ND	--	--	--	--	--	--
NM-B5-25	12/03/02	ND	ND	ND	ND	ND	ND	ND	--
METHOD	--	--	--	ND	ND	ND	ND	3.44-MTBE	--
BLANK									

Notes:

* = soil samples collected by Kahl Environmental

-- = Not analyzed

ND = Not detected at or above detection or reporting limits

EOs = Ether oxygenates

MTBE = Methyl tert-butyl ether, USEPA test method 8260B

TBA = Tert-butyl alcohol, USEPA test method 8260B

TPH-G = Total petroleum hydrocarbon - gasoline, LUFT method

TPH-D = Total petroleum hydrocarbon - diesel, LUFT method

µg/kg = Micrograms per kilogram.

mg/kg = Milligrams per kilogram.

Table 2 – Groundwater Analytical Results

Sample Identification	Date Sampled	TPH-G (µg/ℓ)	TPH-D (µg/ℓ)	Benzene (µg/ℓ)	Toluene (µg/ℓ)	Ethylbenzene (µg/ℓ)	Xylenes (µg/ℓ)	EOs (µg/ℓ)	Lead (mg/ℓ)
Kahl-A*	6/10/2002	ND	NF	ND	ND	ND	ND	ND	--
Kahl-B*	6/10/2002	ND	NF	ND	ND	ND	ND	ND	--
NM-MW1	12/13/2002	ND	ND	ND	ND	ND	ND	ND	--
	7/24/2003	ND	ND	ND	ND	ND	ND	ND	--
	11/19/2003	ND	ND	ND	ND	ND	ND	ND	ND
	3/19/2004	ND	ND	ND	ND	ND	ND	ND	ND
	7/28/2004	ND	ND	ND	ND	ND	ND	ND	ND
NM-MW2	12/20/2004	ND	**ND	ND	ND	ND	ND	ND	ND
	4/18/2005	ND	ND	ND	ND	ND	ND	ND	ND
	12/13/2002	ND	ND	ND	ND	ND	ND	ND	--
	7/24/2003	ND	ND	ND	ND	ND	ND	ND	--
	11/19/2003	ND	ND	ND	ND	ND	ND	ND	ND
NM-MW3	3/19/2004	ND	ND	ND	ND	ND	ND	ND	ND
	7/27/2004	ND	530	ND	ND	ND	ND	ND	ND
	12/20/2004	ND	ND	ND	ND	ND	ND	ND	ND
	4/18/2005	ND	ND	ND	ND	ND	ND	ND	ND
	12/12/2002	ND	ND	ND	ND	ND	ND	16-MTBE, 6.5-TBA	--
NM-MW4	7/24/2003	ND	ND	ND	ND	ND	ND	49-MTBE	ND
	11/20/2003	ND	ND	ND	ND	ND	ND	14-MTBE	ND
	3/22/2004	ND	ND	ND	ND	ND	ND	31-MTBE	ND
	7/27/2004	ND	ND	ND	ND	ND	ND	17-MTBE	ND
	12/20/2004	ND	**ND	ND	ND	ND	ND	3.9-MTBE	ND
NM-MW4	4/18/2005	ND	ND	ND	ND	ND	ND	ND	ND
	12/12/2002	ND	ND	ND	ND	ND	ND	52-MTBE	--
	7/24/2003	ND	ND	ND	ND	ND	ND	7.9-MTBE	--
	11/19/2003	ND	ND	ND	ND	ND	ND	25-MTBE	ND
	3/22/2004	ND	ND	ND	ND	ND	ND	32-MTBE	ND
NM-MW4	7/28/2004	ND	ND	ND	ND	ND	ND	11-MTBE	ND
	12/20/2004	ND	520	ND	ND	ND	ND	51-MTBE	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	8.5-MTBE	ND

Table 2 – Groundwater Analytical Results

Sample Identification	Date Sampled	TPH-G ($\mu\text{g}/\ell$)	TPH-D ($\mu\text{g}/\ell$)	Benzene ($\mu\text{g}/\ell$)	Toluene ($\mu\text{g}/\ell$)	Ethylbenzene ($\mu\text{g}/\ell$)	Xylenes ($\mu\text{g}/\ell$)	EOs ($\mu\text{g}/\ell$)	Lead (mg/ℓ)
NM-MW5	12/13/2002	ND	ND	ND	ND	ND	ND	ND	--
	7/24/2003	ND	ND	ND	ND	ND	ND	ND	--
	11/19/2003	ND	ND	ND	ND	ND	ND	ND	ND
	3/19/2004	ND	ND	ND	ND	ND	ND	ND	ND
	7/27/2004	ND	ND	ND	ND	ND	ND	ND	ND
	12/20/2004	ND	**ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND
Notes: -- = Not analyzed ND = Not detected at or above reporting limits EOs = Ether oxygenates MTBE = Methyl tert-butyl ether TBA = Tert-butyl alcohol TPH-G = Total petroleum hydrocarbons- gasoline TPH-D = Total petroleum hydrocarbons - diesel $\mu\text{g}/\ell$ = Micrograms per liter mg/ℓ = Milligrams per liter * = Groundwater sample collected by Kahl Environmental ** = Sampled on Dec.30, 2004									

Table 3 – Groundwater Survey Data

Well	Date	Top of Well Casing Elevation*	Depth to Groundwater**	Groundwater Elevation*
NM-MW1	12/13/2002	392.53	26.12	366.41
	7/24/2003		24.13	368.4
	11/19/2003		25.95	366.58
	3/19/2004		23.87	368.66
	7/27/2004		26.47	366.06
	12/20/2004		24.96	367.57
	4/18/2005		21.51	371.02
NM-MW2	12/13/2002	391.29	25.66	365.64
	7/24/2003		23.9	367.39
	11/19/2003		25.5	365.79
	3/19/2004		23.19	368.1
	7/27/2004		26.05	365.24
	12/20/2004		24.4	366.89
	4/18/2005		21.08	370.21
NM-MW3	12/12/2002	393.45	28	365.45
	7/24/2003		26.46	366.99
	11/20/2003		27.96	365.49
	3/19/2004		25.66	367.79
	7/27/2004		28.46	364.99
	12/20/2004		26.82	366.63
	4/18/2005		23.72	369.73
NM-MW4	12/12/2002	392.39	26.82	365.57
	7/24/2003		25.02	367.37
	11/19/2003		26.72	365.67
	3/19/2004		24.35	368.04
	7/27/2004		27.23	365.16
	12/20/2004		25.5	366.89
	4/18/2005		22.23	370.16
NM-MW5	12/13/2002	392.74	27.01	365.73
	7/24/2003		25.39	367.35
	11/19/2003		27.05	365.69
	3/19/2004		24.85	367.89
	7/27/2004		27.54	365.2
	12/20/2004		25.94	366.8
	4/18/2005		22.71	370.03
Notes: *Measured in feet above mean sea level **Measured from top of casing				

12210 Industry Road
Lakeside, California

April 19, 2006
Project No. 104270006

APPENDIX A

**COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH LETTER
DATED NOVEMBER 8, 2004**

RECEIVED NOV 12 2004



County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION

P.O. BOX 129281, SAN DIEGO, CA 92112-9281
619-338-2222/FAX 619-338-2315/1-800-253-9933
www.sdcountry.ca.gov/deh/lwq

RICHARD HAAS
ASSISTANT DIRECTOR

November 8, 2004

Ms. Margaret Bright
Bright's 24-Hour Fuel Stop
13329 Lakeshore Drive
Lakeside, CA 92040

Ms. Elizabeth Ederer
Lakeside Business Park, Inc.
P.O. Box 21276
El Cajon, CA 92021

Dear Ms. Bright and Ms. Ederer:

UNAUTHORIZED RELEASE CASE H20530-001
BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY RD., LAKESIDE, CA 92040-1747

Staff of the County of San Diego Site Assessment and Mitigation Program (SAM) has reviewed the *Groundwater Sampling Report Second Quarter 2004*, prepared by Ninyo and Moore on October 15, 2004.

SAM has determined that assessment of this site is complete and additional fieldwork is not required at this time. Groundwater monitoring data indicates that MTBE concentrations exceed the Maximum Contaminant Levels for sites located in a beneficial basin, consequently, you are required to submit a Corrective Action Plan (CAP) before this case can be considered for closure. Please continue quarterly monitoring until further notice.

Within 60 days of this letter, please submit a CAP to my attention. Natural Attenuation should be considered as a remedial alternative.

If you have any questions, please call me at (619) 338-2456.

Sincerely,

DANNY MARTINEZ, Environmental Health Specialist
Site Assessment and Mitigation Program

DM:kd

cc: Mr. Sean McGoey, Ninyo and Moore















WP/H20530-001-1104

12210 Industry Road
Lakeside, California

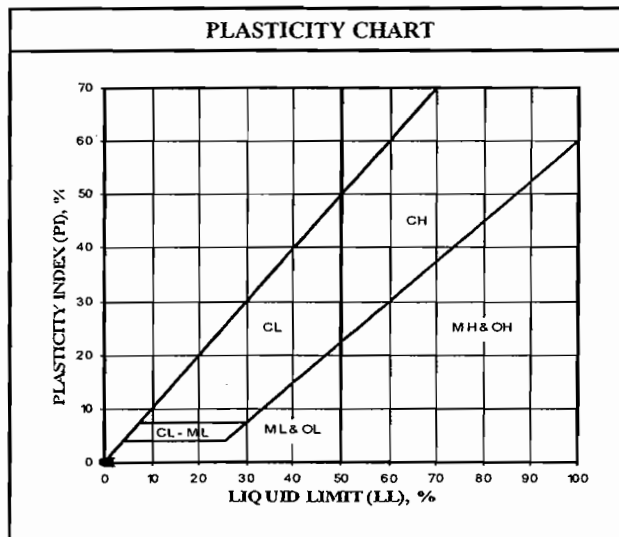
April 19, 2006
Project No. 104270006

APPENDIX B

BORING LOGS AND WELL CONSTRUCTION SCHEMATICS

U.S.C.S. METHOD OF SOIL CLASSIFICATION				
MAJOR DIVISIONS		SYMBOL		TYPICAL NAMES
COARSE-GRAINED SOILS (More than 1/2 of soil >No. 200 sieve size)	GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size)		GW	Well graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
			GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 1/2 of coarse fraction <No. 4 sieve size)		SW	Well graded sands or gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
			SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (More than 1/2 of soil <No. 200 sieve size)	SILTS & CLAYS Liquid Limit <50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean
			OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS Liquid Limit >50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils	

GRAIN SIZE CHART		
CLASSIFICATION	RANGE OF GRAIN SIZE	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL Coarse Fine	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.76
SAND Coarse Medium Fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.075
SILT & CLAY	Below No. 200	Below 0.075



Ninyo & Moore

U.S.C.S. METHOD OF SOIL CLASSIFICATION

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	BORING LOG EXPLANATION SHEET
	Bulk	Driven						
0								<p>Bulk sample.</p> <p>Modified split-barrel drive sampler.</p> <p>No recovery with modified split-barrel drive sampler.</p> <p>Sample retained by others.</p> <p>Standard Penetration Test (SPT).</p> <p>No recovery with a SPT.</p> <p>Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.</p> <p>No recovery with Shelby tube sampler.</p> <p>Continuous Push Sample.</p> <p>Seepage.</p> <p>Groundwater encountered during drilling.</p> <p>Groundwater measured after drilling.</p>
5			XX/XX					
10								
15							SM	<p>ALLUVIUM:</p> <p>Solid line denotes unit change.</p> <p>Dashed line denotes material change.</p> <p>Attitudes: Strike/Dip</p> <p>b: Bedding</p> <p>c: Contact</p> <p>j: Joint</p> <p>f: Fracture</p> <p>F: Fault</p> <p>cs: Clay Seam</p> <p>s: Shear</p> <p>bss: Basal Slide Surface</p> <p>sf: Shear Fracture</p> <p>sz: Shear Zone</p> <p>sbs: Sheared Bedding Surface</p>
20								<p>The total depth line is a solid line that is drawn at the bottom of the boring.</p>

Ningo & Moore

BORING LOG

EXPLANATION OF BORING LOG SYMBOLS

PROJECT NO.

DATE
Rev. 01/03

FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/02/02 BORING NO. NM-B1/MW1	
	Bulk	Driven							GROUND ELEVATION 392± (MSL) SHEET 1 OF 2	METHOD OF DRILLING CME 75/10" Diameter Hollow-Stem Auger
									DRIVE WEIGHT 140 lbs. (Spooling Cable) DROP 30"	
									SAMPLED BY PDC LOGGED BY PDC REVIEWED BY SOM/PDC	
									DESCRIPTION/INTERPRETATION	
0								SM/GM	CONCRETE: Approximately 8" thick. FILL: Brown, damp, very dense, clayey silty fine to medium SAND with gravels and cobbles.	
			61			0.0		SC	Brown, damp, dense, clayey fine to medium SAND with gravel and cobbles.	
10			39			0.0				
								ML	ALLUVIUM: Dark brown, damp to moist, very dense, clayey SILT.	
			58			0.0				
								SM	Brown, damp to moist, medium dense, silty fine to medium SAND.	
20			27			0.0				
								ML	Dark brown, damp to moist, medium dense, clayey SILT.	
			16			0.0				
								SC	Brown, damp to moist, medium dense, clayey fine to medium SAND.	
30			10			0.0				
								ML	Dark brown, moist to wet, loose, fine sandy clayey SILT.	
			8			0.0			Saturated.	
40										

Ningo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

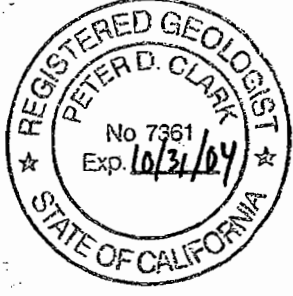
104270006

DATE

05/03

FIGURE

A-1

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/02/02 BORING NO. NM-B1/MWI	
	Bulk	Driven							GROUND ELEVATION 392± (MSL) SHEET 2 OF 2	METHOD OF DRILLING CME 75/10" Diameter Hollow-Stem Auger
40			17					ML	DRIVE WEIGHT 140 lbs. (Spooling Cable) DROP 30" SAMPLED BY PDC LOGGED BY PDC REVIEWED BY SOM/PDC DESCRIPTION/INTERPRETATION ALLUVIUM: (Continued) Dark brown, wet, medium dense, fine sandy clayey SILT. Total Depth = 41.5 feet. Groundwater encountered during drilling at approximately 37 feet bgs during drilling. Groundwater monitoring well constructed on 12/02/02.	
50										
60										
70										
80										

Ninyo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

104270006

DATE

05/03

FIGURE

A-2

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/02 - 12/03/02 BORING NO. NM-B2/MW2	
	Bulk	Driven							GROUND ELEVATION 392± (MSL) SHEET 1 OF 2	METHOD OF DRILLING CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem
									DRIVE WEIGHT 140 lbs. (Spooling Cable) DROP 30"	
									SAMPLED BY PDC LOGGED BY PDC REVIEWED BY SOM/PDC	
									DESCRIPTION/INTERPRETATION	
0								SM/GM	CONCRETE: Approximately 9" thick. FILL: Dark brown, damp, dense to very dense, silty fine SAND with abundant gravel, cobbles, and some boulders. Drilling refusal with CME 75 8" Diameter Hollow-Stem Auger and switched to Watson 2000 Solid Stem Auger.	
10									Abundant gravels, cobbles, and boulders.	
			38			0.0			Changed drilling rig/method from Watson 2000 Solid Stem Auger to CME 75 10" Diameter Hollow-Stem Auger	
20			30			0.0		SM	ALLUVIUM: Brown, damp to moist, dense, silty fine SAND.	
			24			0.0			Brown to dark brown; moist to wet; medium dense; silty fine to medium sand.	
30			16			0.0			Saturated.	
			15			0.0		ML	Dark brown, saturated, medium dense, fine sandy clayey SILT.	
								SM	Dark brown, saturated, loose, silty fine SAND.	
40										

Ninyo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

DATE

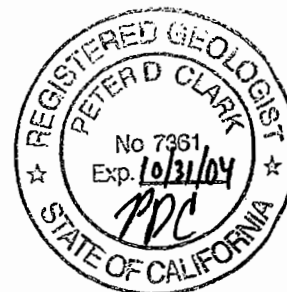
FIGURE

104270006

05/03

A-3

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/02 - 12/03/02</u> BORING NO. <u>NM-B2/MW2</u> GROUND ELEVATION <u>392± (MSL)</u> SHEET <u>2</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION
	Bulk	Driven							
40			7			0.0		SM	ALLUVIUM: (Continued) Dark brown, saturated, loose, silty fine SAND. Total Depth = 41.5 feet. Groundwater encountered during drilling at approximately 30 feet bgs during drilling. Groundwater monitoring well constructed on 12/03/02.
50									
60									
70									
80									



Ninyo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

DATE

FIGURE

104270006

05/03

A-4

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/02/02</u> BORING NO. <u>NM-B3/MW3</u> GROUND ELEVATION <u>392'± (MSL)</u> SHEET <u>1</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION		
	Bulk	Driven									
0								SM/GM	CONCRETE: Approximately 6" thick. FILL: Brown, damp, medium dense, clayey silty fine SAND with gravel and cobbles. Hard drilling; some boulders. Damp to moist; dense.		
16			42			0.0		SC	Brown, damp to moist, very dense, clayey silty fine SAND with gravel and cobbles. Dense.		
58			31			0.0		ML	ALLUVIUM: Dark brown, damp to moist, medium dense, clayey SILT. Wet.		
29			8			0.0		SM	Brown to dark brown, medium dense, saturated, silty fine SAND.		
21						0.0					

Ningo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

104270006

DATE

05/03

FIGURE

A-5

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/02/02</u> BORING NO. <u>NM-B3/MW3</u> GROUND ELEVATION <u>392± (MSL)</u> SHEET <u>2</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION
	Bulk	Driven							
40			12					SM	<u>ALLUVIUM: (Continued)</u> Brown to dark brown, saturated, medium dense, silty fine SAND. Total Depth = 41.5 feet. Groundwater encountered during drilling at approximately 30 feet bgs during drilling. Groundwater monitoring well constructed on 12/03/02.
50									
60									
70									
80									



Ningo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.
104270006

DATE
05/03

FIGURE
A-6

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/03 - 12/04/02</u> BORING NO. <u>NM-B4/MW4</u> GROUND ELEVATION <u>392± (MSL)</u> SHEET <u>1</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION		
	Bulk	Driven									
0						30.0		SM/GM	CONCRETE: Approximately 7" thick. FILL: Brown to dark brown, damp, dense to very dense, silty fine to medium SAND with abundant gravel, cobbles, and some boulders; some wire cable; wood debris; metal debris; light petroleum hydrocarbon odor. Light hydrocarbon odor. Light hydrocarbon odor. Changed drilling rig/method from Watson 2000 Solid Stem Auger to CME 75 10" Diameter Hollow-Stem Auger. Moist; medium dense; no hydrocarbon odor. Brown; very dense.		
10						5.5					
15											
20			34			0.0					
25											
30			57			0.0					
35								SM	ALLUVIUM: Brown, moist, medium dense, silty fine SAND.		
40			20			0.0					
45								ML	Dark brown, moist, medium dense, clayey SILT.		
50			24			0.0			Saturated.		
55											
60			14			0.0					
65								SM	Brown, saturated, medium dense, silty fine to medium SAND.		

Ninyo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

DATE

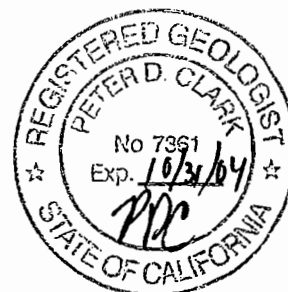
FIGURE

104270006

05/03

A-7

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/03 - 12/04/02</u> BORING NO. <u>NM-B4/MW4</u> GROUND ELEVATION <u>392± (MSL)</u> SHEET <u>2</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION
	Bulk	Driven							
40			10			0.0		SM	<u>ALLUVIUM: (Continued)</u> Brown, saturated, medium dense, silty fine to medium SAND. Total Depth = 41.5 feet. Groundwater encountered during drilling at approximately 30 feet bgs during drilling. Groundwater monitoring well constructed on 12/04/02.
50									
60									
70									
80									



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BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

DATE

FIGURE

104270006

05/03

A-8

DEPTH (feet)	BULK SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/03 - 12/04/02 BORING NO. NM-B5/MW5	
								GROUND ELEVATION 392± (MSL) SHEET 1 OF 2	
METHOD OF DRILLING CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem								DRIVE WEIGHT 140 lbs. (Spooling Cable) DROP 30"	
SAMPLED BY PDC LOGGED BY PDC REVIEWED BY SOM/PDC								DESCRIPTION/INTERPRETATION	
0							SM/GM	CONCRETE: Approximately 6" thick. FILL: Dark brown, dry to damp, dense to very dense, silty fine SAND with abundant gravel, cobbles, and some boulders.	
10					0.0		SM	ALLUVIUM: Brown, damp to moist, dense, silty fine to medium SAND.	
17		47			0.0			Changed drilling rig/method from Watson 2000 Solid Stem Auger to CME 75 10" Diameter Hollow-Stem Auger.	
20		24			0.0			Moist; medium dense.	
24					0.0		ML	Dark brown, moist to wet, medium dense, fine sandy clayey SILT.	
30		17			0.0			Saturated.	
36					0.0		SM	Brown, saturated, medium dense, silty fine SAND.	
40		16			0.0				

Ningo & Moore

BORING LOG

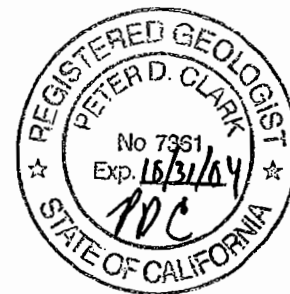
BRIGHT'S 24-HOUR FUEL STOP
12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.
104270006

DATE
05/03

FIGURE
A-9

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12/03 - 12/04/02</u> BORING NO. <u>NM-B5/MW5</u> GROUND ELEVATION <u>392± (MSL)</u> SHEET <u>2</u> OF <u>2</u> METHOD OF DRILLING <u>CME 75/10" Diameter Hollow-Stem Auger/Watson 2000 Solid Stem</u> DRIVE WEIGHT <u>140 lbs. (Spooling Cable)</u> DROP <u>30"</u> SAMPLED BY <u>PDC</u> LOGGED BY <u>PDC</u> REVIEWED BY <u>SOM/PDC</u> DESCRIPTION/INTERPRETATION
	Bulk	Driven							
40			13			0.0		SM	ALLUVIUM: (Continued) Brown, saturated, medium dense, silty fine SAND. Total Depth = 41.5 feet. Groundwater encountered during drilling at approximately 30 feet bgs during drilling. Groundwater monitoring well constructed on 12/04/02.
50									
60									
70									
80									



Ningo & Moore

BORING LOG

BRIGHT'S 24-HOUR FUEL STOP

12210 INDUSTRY ROAD, LAKESIDE, CALIFORNIA

PROJECT NO.

104270006

DATE

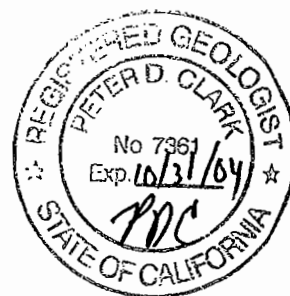
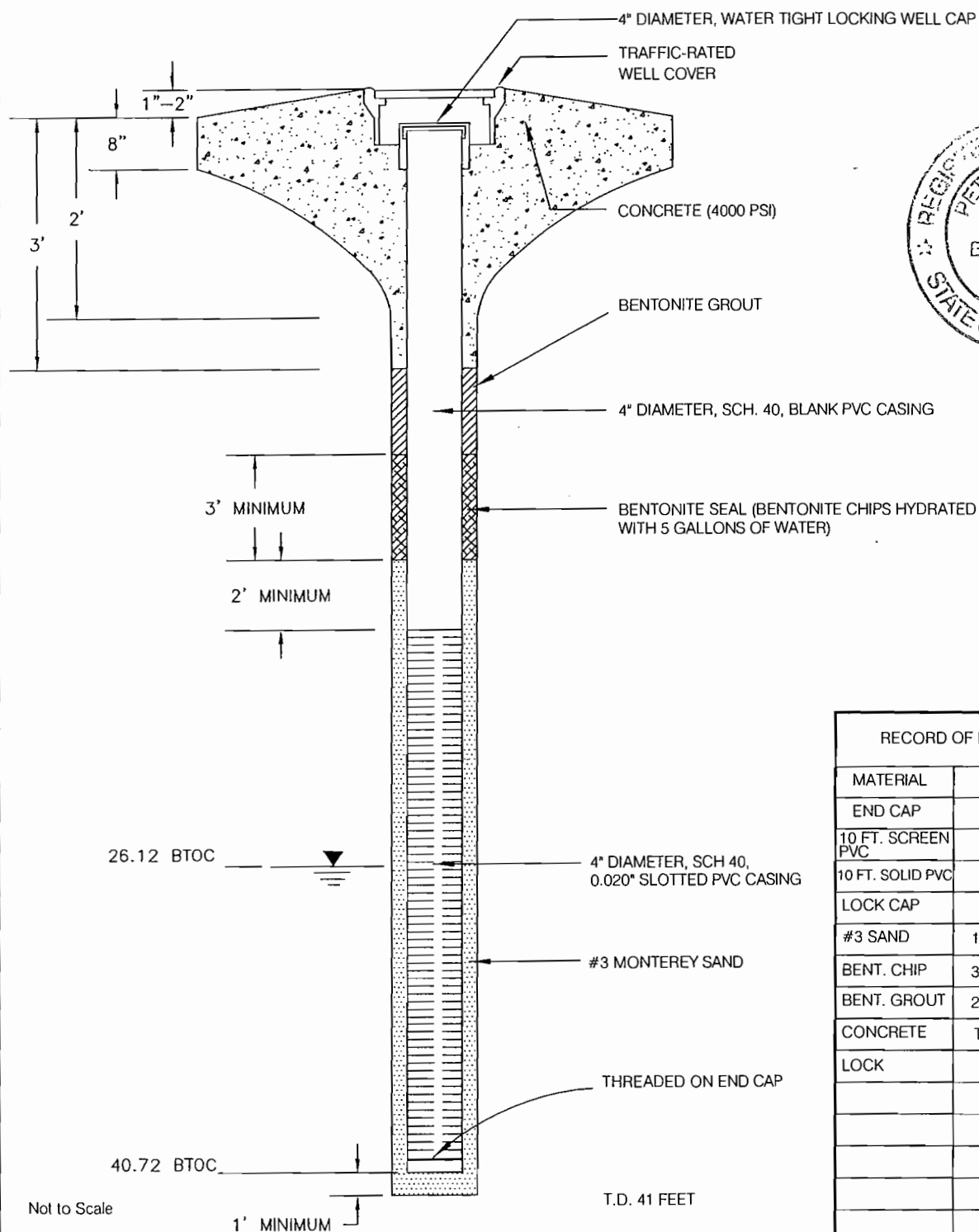
05/03

FIGURE

A-10

PROJECT NO.: 104270006

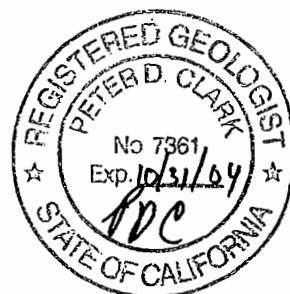
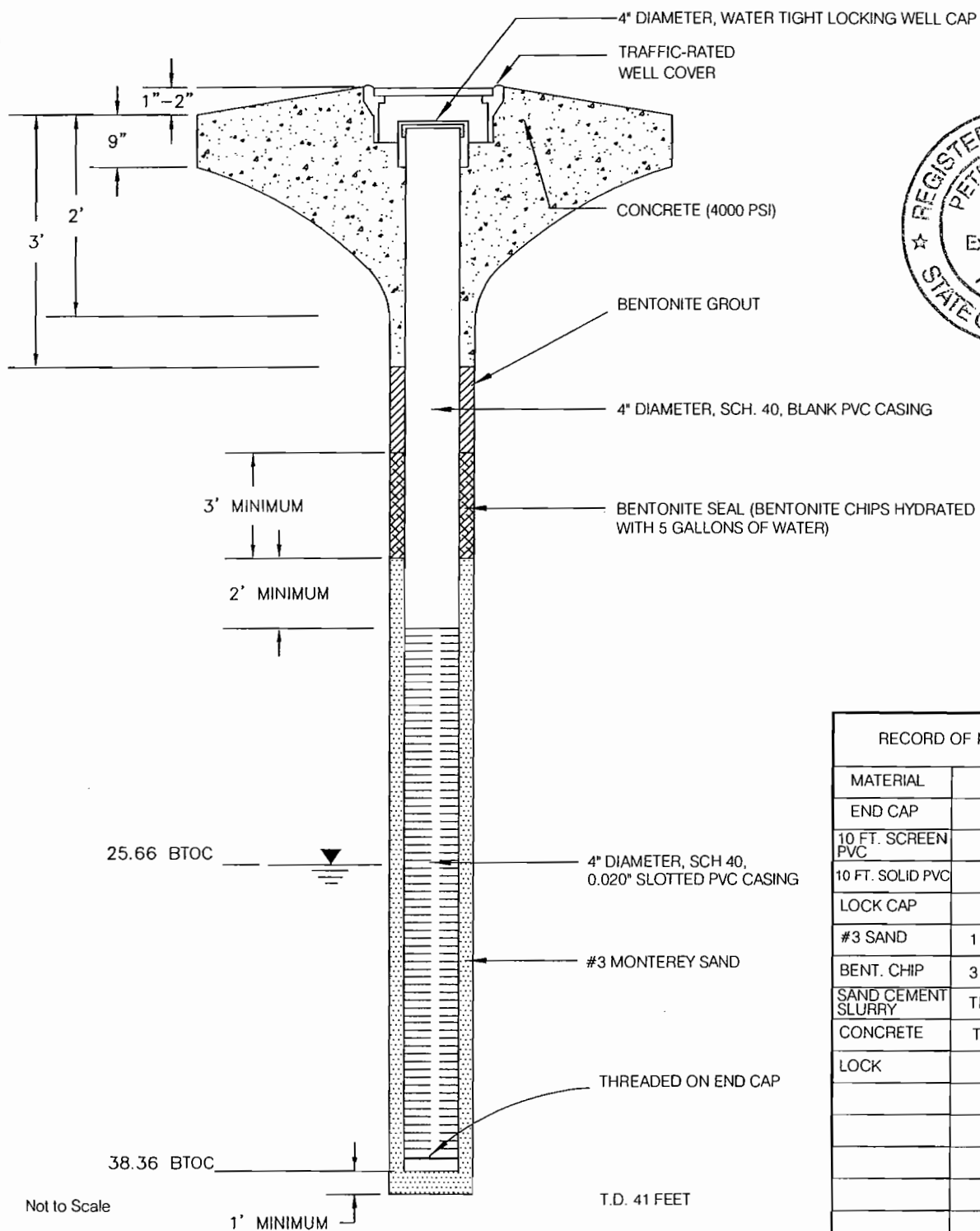
MONITORING
WELL NO.: NM-B1/MW1
COMPLETION
DATE: 12/02/2002

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4270uu6well1

PROJECT NO.: 104270006

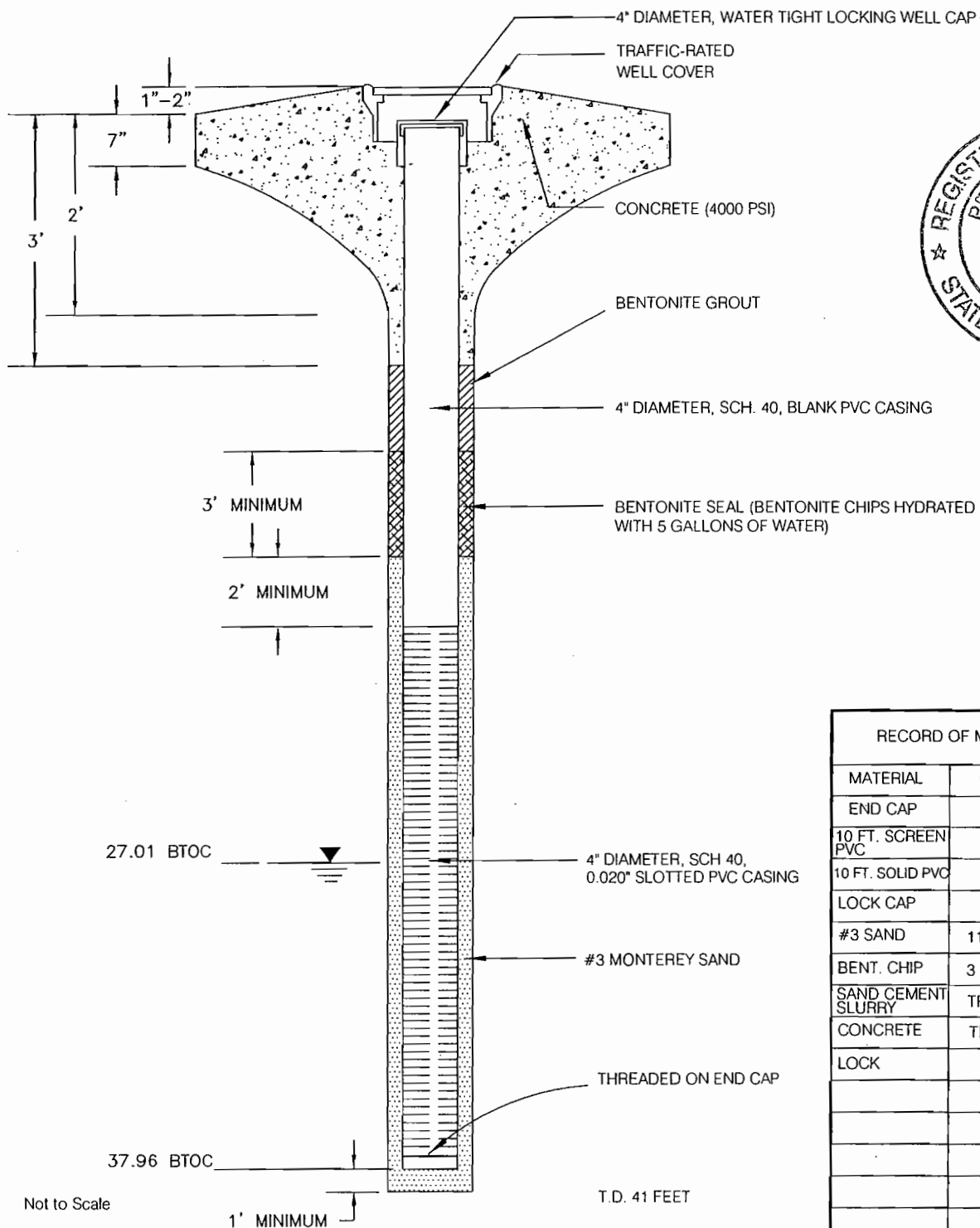
COMPLETION
DATE: 12/03/2002

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427006well2

PROJECT NO.: 104270006

COMPLETION
DATE: 12/04/2002

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